

Observations of Rufous Fishing Owl *Scotopelia ussheri* in Sierra Leone

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Observations de la Chouette-pêcheuse rousse *Scotopelia ussheri* en Sierra Leone. Les observations de la Chouette-pêcheuse rousse *Scotopelia ussheri* en Sierra Leone sont présentées de façon succincte, avec une attention particulière pour la Forêt de Gola et l'île de Tiwai, d'où proviennent la majorité des données récentes. Douze contacts visuels ont été rapportés depuis 1989, tous suffisamment bien documentés pour éliminer la Chouette-pêcheuse de Pel *S. peli*, espèce étroitement apparentée qui se trouve dans la même zone. L'observation prolongée de deux adultes et un juvénile près de Tiwai en février 2014 ont permis la collecte de données concernant le comportement et l'écologie de cette espèce peu connue, ainsi que l'obtention de photos, qui sont présentées ici.

Summary. This paper summarises observations of Rufous Fishing Owl *Scotopelia ussheri* in Sierra Leone with an emphasis on Gola Forest and Tiwai Island, from where the majority of recent records emanates. Twelve visual encounters with the species have been reported since 1989, all of which were sufficiently well documented to eliminate the closely related Pel's Fishing Owl *S. peli*, which occurs in the same area. The protracted observation of two adults and a juvenile near Tiwai in February 2014 permitted the collection of behavioural / ecological data and photographs of this poorly known species, which are presented here.

Despite its recent down-listing from Endangered to Vulnerable, Rufous Fishing Owl *Scotopelia ussheri* is one of the rarest and least-known owls in the world, with a population estimated at no more than 10,000 individuals (BirdLife International 2014). The species is endemic to Upper Guinea forests and has a much more restricted range than its two congeners, Pel's *S. peli* and Vermiculated Fishing Owls *S. bouvieri* (Marks *et al.* 1999), with records from just five West African countries, including Sierra Leone, south-east Guinea, Liberia, Ivory Coast and south-west Ghana (see, e.g., Borrow & Demey 2001).

In Sierra Leone, no systematic census has been conducted to date, hence current knowledge of the species' distribution is based solely on a few local surveys and casual observations by visiting birders. Rufous Fishing Owls have been reported from at least three (protected) areas in the country: Loma Mountains Forest Reserve, Gola Rainforest National Park and Tiwai Island Wildlife Sanctuary. Few records are available for the Loma Mountains, where it was first reported in 1992 (Atkinson *et al.* 1994) but just one possible record (in February 2008: Demey & Okoni-Williams 2008) since then. Most recent observations are from Gola and the nearby Tiwai Island area (including its smaller satellites), presumably due to the development of research and ecotourism activities in and around Gola Forest since 2006.

The first record of Rufous Fishing Owl for Gola Forest dates from 1989, when a captive juvenile was found in a village near its boundaries (Allport *et al.* 1989, Atkinson *et al.* 1994). Subsequently, at least 11 confirmed records have been made in the wild, six in Gola Forest, three at Tiwai, and two in unprotected areas adjacent to Gola, at Kwadi stream and the Moro River (see Table 1 for an overview). Within Gola, all of the records are from Mogbai, Makoi and Kwadi streams in Gola Central and Koadi stream in Gola South, while at Tiwai, on the Moa River, most sightings have been made on the small nearby islands of Tagati, Bati and Bunduti, rather than on Tiwai itself (note that the names of the Gola forest blocks have recently been changed: those areas previously known as Gola West and East are now Gola South, Gola North has become Gola Central, and Extension II is now Gola North). In all cases, the reported observations were sufficiently detailed to avoid confusion with Pel's Fishing Owl, which is also known to occur in this area (see e.g. Klop *et al.* 2010; this paper). Perhaps the most interesting record to date concerns the observation, in February 2014, of two adults and a juvenile / immature, near Tiwai Island. While most previous records in Sierra Leone involved brief sightings, the birds in February 2014 were observed for protracted periods on four different dates (including three consecutive days), thereby

Table 1. Sightings of Rufous Fishing Owls *Scotopelia ussheri* in and around Gola Rainforest National Park and Tiwai Island.

Tableau 1. Observations de la Chouette-pêcheuse rousse *Scotopelia ussheri* au Parc national de Gola et à l'île de Tiwai et leurs environs.

* = GPS data available / données GPS disponibles

Date	Sighting	Locality	Observer(s)	Source
12 Feb 1989	captive juvenile (photographed)	Madina: caught by villager several days previously in clump of bamboo at stream through nearby cocoa / coffee plantation, slightly outside Gola Central	G. Allport, P. Robertson	Allport <i>et al.</i> (1989); see also Fig. 5 in Atkinson <i>et al.</i> (1994)
28 Nov 2006	adult roosting at dusk in bamboo	Mogbai stream close to Konella, Gola Central *	G. Shorrocks, F. Hunter	G. Shorrocks & F. Hunter <i>in litt.</i> (2006)
8 Dec 2006	adult roosting and flying by midday	Mogbai stream 2.5 km upstream of Konella, Gola Central *	G. Anderson, E. Klop	Anderson <i>et al.</i> (2007), Wotton <i>et al.</i> (2010)
4 and 6 Feb 2007	adult seen at dusk	Kwadi stream near Tunkia Nema, Gola South *	F. Dowsett-Lemaire, R. J. Dowsett	Dowsett-Lemaire & Dowsett (2008)
12 Mar 2007	adult roosting by day in small tree 5 m above riverbed	Makoi River, Gola Central *	E. Klop, M. Kanneh	Klop <i>et al.</i> (2008)
14–15 Mar 2007	pair heard duetting at night and found roosting the following day in a large bamboo stand	Kwadi stream near Kwadima, slightly outside Gola Central *	E. Klop, A. M. Siaka	Klop <i>et al.</i> (2008), Klop <i>et al.</i> (2010)
10 Mar 2008	adult flushed from dense shrubbery in afternoon	Tiwai Island	R. Demey, A. M. Siaka	R. Demey <i>in Bull. ABC</i> 15: 275 (2008)
16 Jun 2009	adult photographed by camera-trap around midday	Tagati Island, near Tiwai, on Moa River *	A. Conway	Conway <i>et al.</i> (2010)
25 May 2011	adult seen	Moro River near Mogbaima / Mayengema, close to Liberian border and slightly outside Gola Central *	J. Lindsell	J. Lindsell <i>in litt.</i> (2011)
23 March 2012	adult seen	Mogbai stream close to Gola Malimbe camp, Gola Central *	E. Klop	E. Klop <i>in litt.</i> (2012)
24, 28, 31 Jan and 1 Feb 2013	adult seen flying on 24 Jan at night and heard at dusk/night on other dates	Mogbai stream close to Gola Malimbe camp, Gola Central *	S. Wotton, A. Schofield, R. Setchfield, F. Hawkins	Wotton <i>et al.</i> (2010); S. Wotton, A. Schofield, R. Setchfield, F. Hawkins <i>in litt.</i> (2013)
3 and 15–17 Feb 2014	adult seen in late afternoon on 3 Feb; adult with juvenile found roosting by day on 15–17 Feb	Bati and Bunduti Islands near Tiwai Island on the Moa River *	D. Monticelli, A. P. Koroma, D. Bannah, M. Woolf, M. MacRae	This paper

permitting the collection of behavioural/ecological data, and photographs, which are presented here.

Records in February 2014

As part of a short trip to Gola Forest in January–February 2014, DM visited Tiwai twice, on 1–3 and 15–17 February, during which time extensive, albeit opportunistic, searches for fishing owls were conducted together with APK & DB. Based on published information (Conway *et al.* 2009) and the knowledge of local fishermen, we concentrated our searches on the small islands west of Tiwai Island (Tagati, Bati, etc.), where the Moa River flows through a network of narrow, shallow and slow-flowing channels, usually fringed by stands of *Raffia* Palms *Raphia vinifera*. Our standard procedure was to carefully inspect the riparian vegetation from a small dugout canoe along a

pre-established circuit among the network of channels, usually between c.06.00–10.00 hrs and c.17.00–20.00 hrs.

The first encounter occurred on 3 February at 17.45 hrs, when APK & DB noticed a medium-sized owl perched on a boulder in the middle of the stream, 20–25 m ahead of the boat. The bird was initially near the water level, but it almost immediately flew to perch on a nearby *Raffia* Palm at the edge of Bati Island. Before flying further inland, it remained in view for 1–2 minutes, permitting us to positively identify it as an adult Rufous Fishing Owl and to take photographs (Fig. 1). Subsequent attempts to relocate the bird that evening were unsuccessful, but en route to Tiwai Island, DM spotted a second owl flying overhead above the Moa River. This observation was made in poor light, as night had almost



Figure 1. Adult Rufous Fishing Owl *Scotopelia ussheri* on a Raffia Palm *Raphia vinifera*, Bati Island, Sierra Leone, 3 February 2014 (David Monticelli)
 Chouette-pêcheuse rousse *Scotopelia ussheri* adulte sur un Palmier raffia *Raphia vinifera*, île de Bati, Sierra Leone, 3 février 2014 (David Monticelli)

completely fallen, but the first impression was that of a very large owl—probably Pel’s Fishing Owl. A few minutes later, DB relocated it with his spotlight on Tiwai Island, c.200 m from where we had previously found the adult Rufous Fishing Owl. The bird—an adult Pel’s Fishing Owl—was perched on a tree c.6–8 m above the water, where it was in view for c.1 minute before flying away (Fig. 2).

Tiwai and its surrounding islands were re-visited two weeks later. On 15 February at 10.00 hrs, while we were slowly canoeing around Bunduti Island, an owl was spotted on a Raffia Palm overhanging the river. The bird was partially hidden by vegetation, but as it flew away the views were sufficient to identify it as an adult Rufous Fishing Owl. Five minutes later, APK relocated it further inland on a branch c.10–12 m above ground (Figs. 3–4). To our amazement, there were two owls perched together in the same tree. They remained in view for at least 15 minutes, permitting careful examination at close range and a series of photographs. Based on differences in

size, shape and plumage coloration, we concluded that the second bird was a juvenile (Fig. 5). That evening and during the remaining two days in the area, we returned several times to the same spot, where we again found both birds and took additional photographs on 15th at 18.15 hrs and 17th at 09.15 hrs. The photographs revealed subtle differences in plumage details between the adult Rufous Fishing Owl observed on nearby Bati Island and that on Bunduti, indicating that they were different individuals.

Description

Size and shape

General impression on first encounter with an adult Rufous Fishing Owl is of a medium-sized owl, at least 20% larger than Barn Owl *Tyto alba*. The young Rufous Fishing Owl photographed on Bunduti (Fig. 5) was substantially smaller than the adult (i.e. similar in size to Barn Owl). When both were seen side by side, the young bird not only appeared shorter but also stubbier. In all cases,



Figure 2. Adult Pel's Fishing Owl *Scotopelia peli*, Tiwai Island Wildlife Sanctuary, Sierra Leone, 3 February 2014 (David Monticelli)

Chouette-pêcheuse de Pel *Scotopelia peli* adulte, Tiwai Island Wildlife Sanctuary, Sierra Leone, 3 février 2014 (David Monticelli)



Figure 3. Adult Rufous Fishing Owl *Scotopelia ussheri*, Bunduti Island, Sierra Leone, 17 February 2014 (David Monticelli)

Chouette-pêcheuse rousse *Scotopelia ussheri* adulte, île de Bunduti, Sierra Leone, 17 février 2014 (David Monticelli)

size alone was almost sufficient to distinguish this species from the much larger Pel's Fishing Owl (Fig. 2).

Plumage

Important differences in plumage coloration and barring permit the rather straightforward separation of Pel's and Rufous Fishing Owls in the field (Figs. 2–3). Pel's is entirely tawny-rufous with fine dusky bars on the mantle, scapulars, wing-coverts, remiges and tail. The bars are dark brown, except on the primaries, where they are more blackish and slightly broader. Adult Rufous Fishing Owl also has barred remiges and rectrices but, unlike Pel's, the upperparts (mantle, scapulars and wing-coverts) are plain and less uniformly coloured, showing a mixture of rufous, creamy-buff and white. A few blackish marks are noticeable on the mantle. In both species, the underparts (breast, belly and flanks) are finely

streaked (i.e. most feathers have a dark shaft) and slightly paler than the upperparts. In Pel's Fishing Owl, some dark-shafted feathers also show a well-defined blackish chevron-like mark over their distal part, especially on the flanks (barely visible on Fig. 2), while in Rufous the blackish chevrons are replaced by a paler and more diffuse rufous patch (Fig. 4).

Bare parts

While Pel's Fishing Owl has an all-grey bill and cere (Fig. 2), Rufous Fishing Owl's bill is bluish grey contrasting with a yellowish cere (Fig. 4). The unfeathered tarsus and toes of Rufous Fishing Owl are yellowish-orange in both the adult and the juvenile.

Ageing

Apart from its smaller size, the juvenile / immature Rufous Fishing Owl appeared bulkier



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Figure 4. Adult Rufous Fishing Owl *Scotopelia ussleri*, Bunduti Island, Sierra Leone, 17 February 2014 (David Monticelli)

Chouette-pêcheuse rousse *Scotopelia ussleri* adulte, île de Bunduti, Sierra Leone, 17 février 2014 (David Monticelli)

Figure 5. Juvenile Rufous Fishing Owl *Scotopelia ussleri*, Bunduti Island, Sierra Leone, 15 February 2014 (David Monticelli)

Chouette-pêcheuse rousse *Scotopelia ussleri* juvénile, île de Bunduti, Sierra Leone, 15 février 2014 (David Monticelli)



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than its parent, presumably due to its dense fluffy feathering. Overall it was also slightly paler than the adult, especially on the underparts (Fig. 5). Close examination of the photographs revealed loosely textured head and body feathers, indicative of first-generation feathers. Twice the young bird was seen in flight, when it could be seen to possess virtually the same wing pattern as the adult, i.e. rufous wings uniformly barred dusky. If eggs are laid in September–October, as suggested in the literature (Marks *et al.* 1999), this bird was probably 4–5 months old.

Voice

During our daytime observations, the owls were silent and no attempt was made to solicit a vocal response using playback. No systematic searches were conducted at night, though we heard a distant call on 3 February at c.23.00 hrs. The call, a dove-like ‘ooo’ repeated at regular intervals of c.15–20 seconds for at least one hour, was clearly different from that of Pel’s Fishing Owl on Chappuis (2000).

Behaviour

The generally accepted view that African fishing owls possess strictly nocturnal habits has recently been challenged by a few reported cases of individuals foraging diurnally (see Conway *et al.* 2010, and references therein). We believe that our late-afternoon observation on 3 February of an adult on a rocky outcrop almost certainly concerned an active individual, although foraging was not witnessed. The same spot was re-visited on several occasions on 15–17 February, but no owls were seen. In contrast, the adult and juvenile observed on Bunduti Island were re-sighted in the same area on several occasions. Each time the birds were perched fairly high in the trees, which suggests that this was a favoured daytime roost. Our presence did not seem to disturb the birds, as they remained on the same branch until we left; in particular, the juvenile seemed rather tame and unaffected by photography, which lasted for c.1 hour on 15th.

Habitat

The Pel’s and Rufous Fishing Owls we observed were sufficiently close to each other (<750 m apart) to suggest that the species breed sympatrically at Tiwai. Previous observations at Gola have

suggested that the two species may possess different habitat and dietary preferences (Klop *et al.* 2010). For example, Rufous Fishing Owl has been mainly observed along small streams, where it is suspected to feed on small fish and crabs, whereas Pel’s Fishing Owl favours deeper and wider rivers. This matches our observations, as Pel’s Fishing Owl was observed along a very wide and deep portion of the Moa River, whereas Rufous Fishing Owls were encountered along shallower and narrower stretches. In addition, Bati and Bunduti Islands are located within secondary forest close to Kambama village, suggesting that Rufous Fishing Owl is not confined to primary forest (*cf.* Allport *et al.* 1989).

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